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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,613	08/25/2000	Jung Min Song	CIT/K-126	4585

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EXAMINER	
KE, PENG	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/645,613	SONG ET AL.	
	Examiner	Art Unit	
	Peng Ke	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 7/30/04.

2. Claims 1-29 are pending in this application. Claims 1, 12, 15, and 21 are independent claims. In the Amendment, filed on 7/30/04, claims 1-7, 9-16, 18-21, and 23-29 were amended.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1-10, 12-19, 21, and 23-27, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Liou et al. (US 6,278,446).

As per claim 12, Liou et al. teaches a video data structure tangibly embodied in a computer readable medium for a video browsing system comprising:

a visualization description scheme (DS) which includes a highlight view DS for display for displaying event data by a highlight, and a key frame view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enables a display of multi-levels of highlight data, and wherein the key frame view DS is organized into

multiple levels which enables a display of multi-levels of summarized data (col. 11, lines 62-68; col. 12, lines 1-10)

a syntactic structure DS which includes information for displaying actual video segments of a video (col. 15 lines 32-45); and

a semantic structure DS which includes additional information describing the video, wherein the semantic description includes information indicative of a storyline relation between objects in the video (col. 14, lines 1-26).

As per claim 13, Liou et al. teaches a video data structure of claim 12, wherein the syntactic structure DS is organized into a segment IDS including actual video segment data and a time DS including corresponding temporal positions of each actual video segment data within the video data (col. 11, lines 12-34).

As per claim 14, Liou et al. teaches a video data structure of claim 13, wherein the semantic structure DS is organized into sub-level structures comprising:

an event DS which includes event information, wherein said event DS is organized into sub-level structures of a reference to segment which includes reference information necessary for displaying a video segment of a video corresponding to events selected by a user and an annotation DS which includes information which connects said selected events with actual positions of said selected events within the video data and information explaining said selected events (fig 12, col. 11 lines 63-68, col. 12, lines 1-10);

an object DS which includes object information (col. 12 ,lines 1-20, fig. 12, the text next the images); and

an event/relation graph DS which includes information on at least one of constant story line relations between the objects, variable storyline relations between the objects, or story line relations between the objects and events, wherein said event/object relation graph DS is organized into an entity story line relation with sub-level structures of a Reference to Object which connects objects having either a constant story line relation or variable storyline relation, a Reference to Event which connects events which are significant to a story line relation between each connected object, and a story line relation which includes information on a nature and title of story line relation between each connected object (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 1, it is rejected with the same rationale as claim 12. (see rejection above)

As per claim 2, Liou et al. teaches a system of claim 1, wherein the main screen displays said video segments by a summary data of said video segments. (fig. 12 items 34, 36, 38, and 40)

As per claim 3, Liou et al. teaches a system of claim 1, wherein a user selects two characters through the character screen to display the video segments corresponding to significant events showing a the storyline relation between the two displayed characters (fig 12, col. 11 lines 63-68, col. 12, lines 1-10; fig 14. col. 13, lines 53-68, col. 14, lines 1-6; It is inherent that two sub-branch of the plotline can be selected, and their plotline relationship to each other is displayed by the main plotline).

As per claim 4, Liou teaches (Currently Amended) A system of claim 1, further comprises a character relation-variable event screen which displays connections between

variable story line relations and significant events (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 5, Liou teaches (Currently Amended) A system of claim 4, wherein the character relation-variable event screen displays either one or both the variable story line relations and events by key frames (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 6, Liou teaches A system of claim 1, further comprising:

a relation screen which displays constant story line relations and variable story line relations between a character selected from the character screen and related characters, wherein said constant story line relations and variable to line relations are displayed in a tree structure (fig 12, col. 11 lines 63-68, col. 12, lines 1-10); and

a main scene screen which displays significant events corresponding to one of either a constant story line relation or variable story line relation selected from the relation screen (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 7, Liou teaches a system of claim 6, wherein the constant sto line relation is displayed on a top level of said tree structure and variable sto line relations are displayed on lower levels of said tree structure (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 8, Liou teaches a system of claim 6, wherein the main scene screen displays the significant events by key frames (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 9, Liou teaches a system of claim 6, further comprising a selection screen wherein the main scene screen displays either one or both main significant events or secondary significant events corresponding to said storyline relation selected from the relation screen,

according to a user selection through said selection screen (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 10, Liou teaches a system of claim 6, further comprising a selection screen, wherein the relation screen displays constant storyline relations and variable line relations corresponding to a story line relation type selected by a user through said selection screen (col. 5, lines 1-20).

As per claim 15, Liou teaches a video browsing system comprising:

a character screen which displays characters of a video ;

a main screen which displays video segments corresponding to significant events showing a plotline relation between two displayed characters of said character screen according to a user selection, wherein said plotline relation may be constant or variable (fig 12, col. 11 lines 63-68, col. 12, lines 1-10; fig 14. col. 13, lines 53-68, col. 14, lines 1-6; It is inherent that two sub-branch of the plotline can be selected, and their plotline relationship to each other is displayed by the main plotline);

a relation screen which displays constant story plotline relations and variable plotline relations between a character selected from the character screen and related characters, wherein said constant plotline relations and variable plotline relations are displayed in a tree structure (fig 12, col. 11 lines 63-68, col. 12, lines 1-10); and

a main scene screen which displays significant events corresponding to one of either a constant plotline relation or variable plotline relation selected from the relation screen (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 16, Liou teaches a system of claim 15, wherein the constant plotline relation is displayed on a top level of said tree structure and variable plotline in relations are displayed on lower levels of said tree structure (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 17, Liou teaches a system of claim 15, wherein the character screen, the main screen, the relation screen, and the main scene screen are displayed using a video data structure comprising:

a visualization DS which includes a highlight view DS for display for displaying event data by a highlight and a key frame view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enables a display of multi-levels of highlight data and wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels of summarized data (fig 12, col. 11 lines 63-68, col. 12, lines 1-10);

a syntactic structure DS which includes information for displaying actual video segments of a video; and a semantic structure DS which includes additional information describing a video (fig 12, col. 11 lines 63-68, col. 12, lines 1-10).

As per claim 18, Liou teaches a system of claim 15, further comprising a selection screen wherein the main scene screen displays either one or both main significant events or secondary significant events corresponding to said plotline relation selected from the relation screen, according to a user selection through said selection screen (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 19, Liou teaches a system of claim 15, further comprising a selection screen wherein the relation screen displays constant plotline relations and variable plotline relations corresponding to a potline relation type selected by a user through said selection screen.

As per claim 21, Liou teaches a video browsing system comprising:

a character menu configured to displays characters that are part of a video; and

a video display configured to display video segments from the video, wherein the video segments correspond to events showing a story line relationship between two displayed characters in said character menu (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 23, Liou teaches the system of claim 21, wherein a user selects two characters through the character menu to display the video segments corresponding to events showing the story line relationship between the two displayed characters (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 24, Liou teaches the system of claim 21, further comprises a character relationship-variable event menu configured to display connections between variable story line relationships and events (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 25, Liou teaches the system of claim 24, wherein the character relationship-variable event menu configured to display either one or both the variable story line relationships and events by key frames (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 26, Liou teaches the system of claim 21, further comprising: a relationship menu configured to display constant storyline relationships and variable storyline relationships between a character selected from the character menu and related characters, wherein said

constant story line relationships and variable story line relationships are displayed in a tree structure (fig 14. col. 13, lines 53-68, col. 14, lines 1-6); and

a main scene menu configured to display significant events corresponding at least one a constant story line relationship and a variable story line relationship selected from the relationship screen (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 27, Liou teaches the system of claim 26, wherein the constant story line relationship is displayed on a top level old said tree structure and variable story line relationships are displayed on lower levels of said tree structure (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

As per claim 29, Liou teaches the system of claim 21, wherein said story line relationship is at least one of a constant story line relationship and a variable storyline relationship (fig 14. col. 13, lines 53-68, col. 14, lines 1-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11, 20, 22, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liou et al. (US 6,278,446) in view of Keith (US 6,629,097).

As per claim 11, Liou teaches a system of claim 10. However he fails to teach wherein a store relation type may be one of a family relation, a business relation, or a social relation.

Keith teaches where in store relation type may be on of a family relation, a business relation, or a social relation (col. 31, lines 40-68)

It would have been obvious to an artisan at the time of the invention to include Keith's teaching with the system of Liou in order to allow stored video clip to be displayed in an entities and concepts relationship that visually reduce individual data items within such a cluster to one encapsulated object or icon representing all the individual data points within the cluster..

As per claim 20, it is of the same scope as claim 11. (see rejection above)

As per claim 28, it is of the same scope as claim 11. (see rejection above)

As per claim 22, Liou teaches the system of claim 21. However, he fails to teach wherein the characters are represented by actors in the video.

Keith teaches the characters in the system are represented by actors.

It would have been obvious to an artisan at the time of the invention to include Keith's teaching with the system of Liou in order to allow stored video clip to be displayed in an entities and concepts relationship that visually reduce individual data items within such a cluster to one encapsulated object or icon representing all the individual data points within the cluster.

Response to argument

Applicant's arguments with respect to claims 1-29 have been considered but are deemed to be moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peng Ke

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